

**PC**

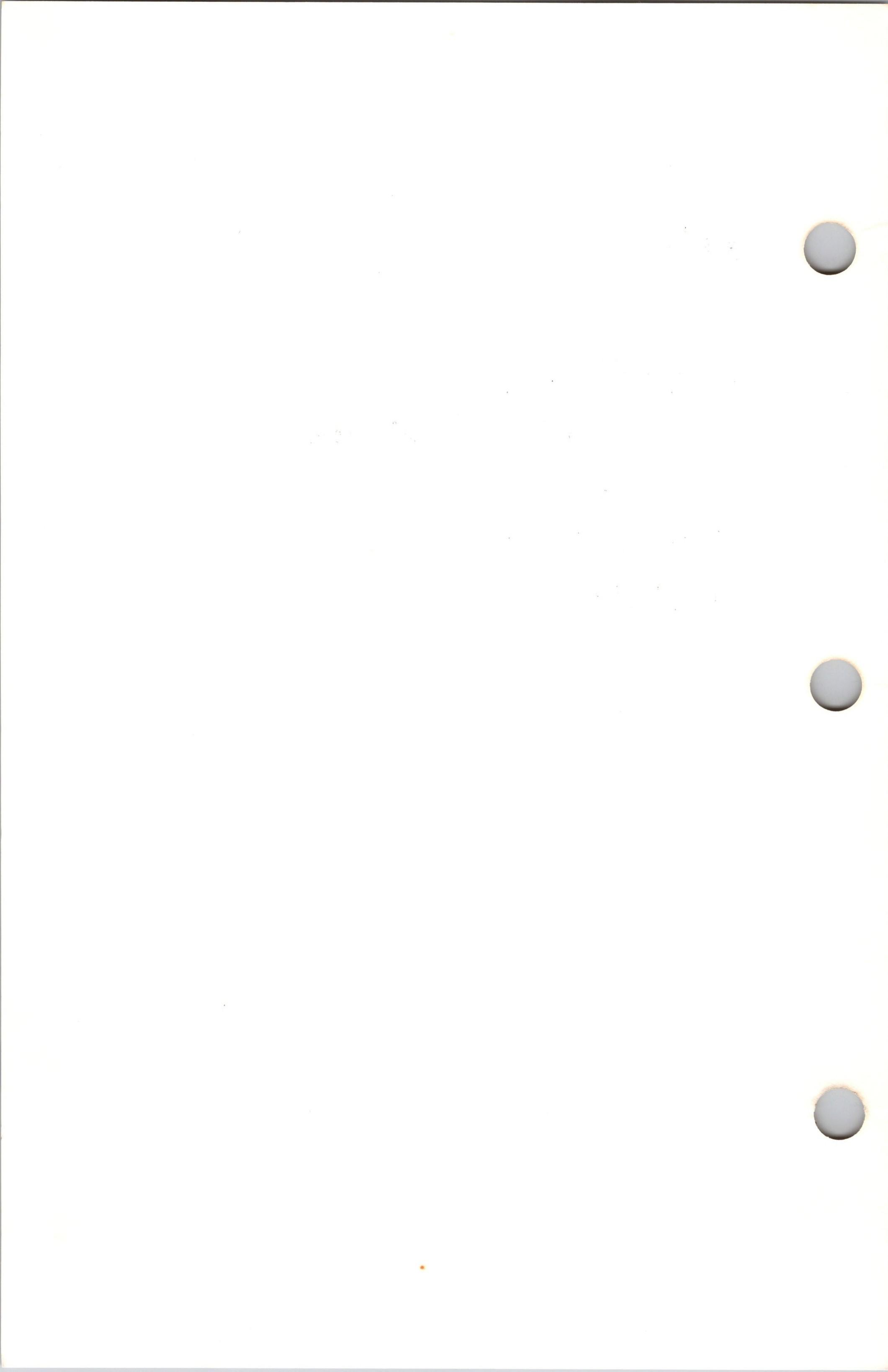
# **Fact Folder: Customer Services Operation Service and Support**

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**Worldwide  
Information  
Systems**

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**Bull** 



# **FACT FOLDER: CUSTOMER SERVICES OPERATION SERVICE AND SUPPORT**

## **SUBJECT**

Instructions for Obtaining Service for Bull PC Products and for Purchasing Additional Equipment and Supplies

## **SPECIAL INSTRUCTIONS**

This manual supersedes GZ98-03 dated February 1988.

## **ORDER NUMBER**

GZ98-04

November 1988



## PREFACE

This document is a revision of GZ98-01, *Fact Folder: Customer Services Operation Services and Support*, for the Bull PC, dated April 1986. Several text changes and new addresses and telephone numbers are reflected in this revision.

USER COMMENTS FORMS are included at the back of this manual. These forms are to be used to record any corrections, changes, or additions that will make this manual more useful.

**Bull disclaims the implied warranties of merchantability and fitness for a particular purpose and makes no express warranties except as may be stated in its written agreement with and for its customer.**

**In no event is Bull liable to anyone for any indirect, special or consequential damages. The information and specifications in this document are subject to change without notice. Consult your Bull Marketing Representative for product or service availability.**

## IMPORTANT PC SAFETY INSTRUCTIONS

Follow these instructions to operate the product safely.

1. Read all these instructions.
2. Save these instructions for later use.
3. Follow all warnings and instructions marked on the product.
4. Unplug the PC from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
5. Do not use the PC near water.
6. Do not place the PC on an unstable cart, stand, or table. It may fall, causing serious damage to the product.
7. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the PC and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the PC on a bed, sofa, rug, or other similar surface. The PC should never be placed near or over a radiator or heat register. The PC should not be placed in a built-in installation unless proper ventilation is provided.
8. The PC should be operated from the type of power source indicated on the marking label. If you are unsure of the type of power available, consult your Honeywell Bull Representative or local power company.
9. The PC is equipped with a 3-wire grounding type plug, a plug having a third (grounding) pin. This plug fits into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.
10. Do not permit anything to rest on the power cord. Do not locate the PC where persons walk on the cord.

11. If an extension cord is used with this PC, make sure that the total of the ampere ratings of the PCs plugged into the extension cord does not exceed the extension cord ampere rating. Also, make sure that the total of all PCs plugged into the wall outlet does not exceed 15 amperes.
12. Never push objects of any kind into the PC through cabinet slots. They may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the PC.
13. Except as explained elsewhere in this manual, do not attempt to service this PC yourself. Opening or removing those covers that are marked "Do Not Remove" may expose you to dangerous voltage points or other risks. Refer all servicing in those compartments to service personnel.
14. Unplug the PC from the wall outlet, and refer servicing to qualified service personnel under the following conditions:
  - When the power cord or plug is damaged or frayed.
  - If liquid has been spilled into the PC.
  - If the PC has been exposed to rain or water.
  - If the PC does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and often requires extensive work by a qualified technician to restore the PC to normal operation.
  - If the PC has been dropped or the cabinet has been damaged.
  - If the PC exhibits a distinct change in performance, indicating a need for service.

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## **Section 1 INTRODUCTION**

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Now that you have your Honeywell Bull PC in place, you may have questions regarding the service your PC might need. Or you may want to order supplies such as disks, printer ribbons, or batteries. Or perhaps you need some help installing the PC. This Fact Folder can help you get the information you need. It contains the addresses and phone numbers of important Honeywell Bull support groups. It also includes helpful information to expedite receiving that support.

Retain the Customer Maintenance Record and the orange preaddressed shipping label. Keep them with the shipping papers (which include your System's Identification Number). Have these documents available if you need to call Honeywell Bull for service. Record the System Identification Number in Section 3 of this manual.

## **PURCHASING OR RENEWING A MAINTENANCE CONTRACT**

Contact your Honeywell Bull Customer Services Operation (CSO) District Service Director Office if you would like to purchase a maintenance contract, or if you would like to renew the existing contract. Contact the National Response Center (NRC) if you need the CSO District Service Director Office number.

The National Response Center telephone numbers are:

Atlanta local calling area:	982-3066
Within Georgia:	800-282-4350
Outside Georgia:	800-241-1634

## **Section 2**

# **ORDERING SOFTWARE, SUPPLIES, AND PERIPHERAL EQUIPMENT**

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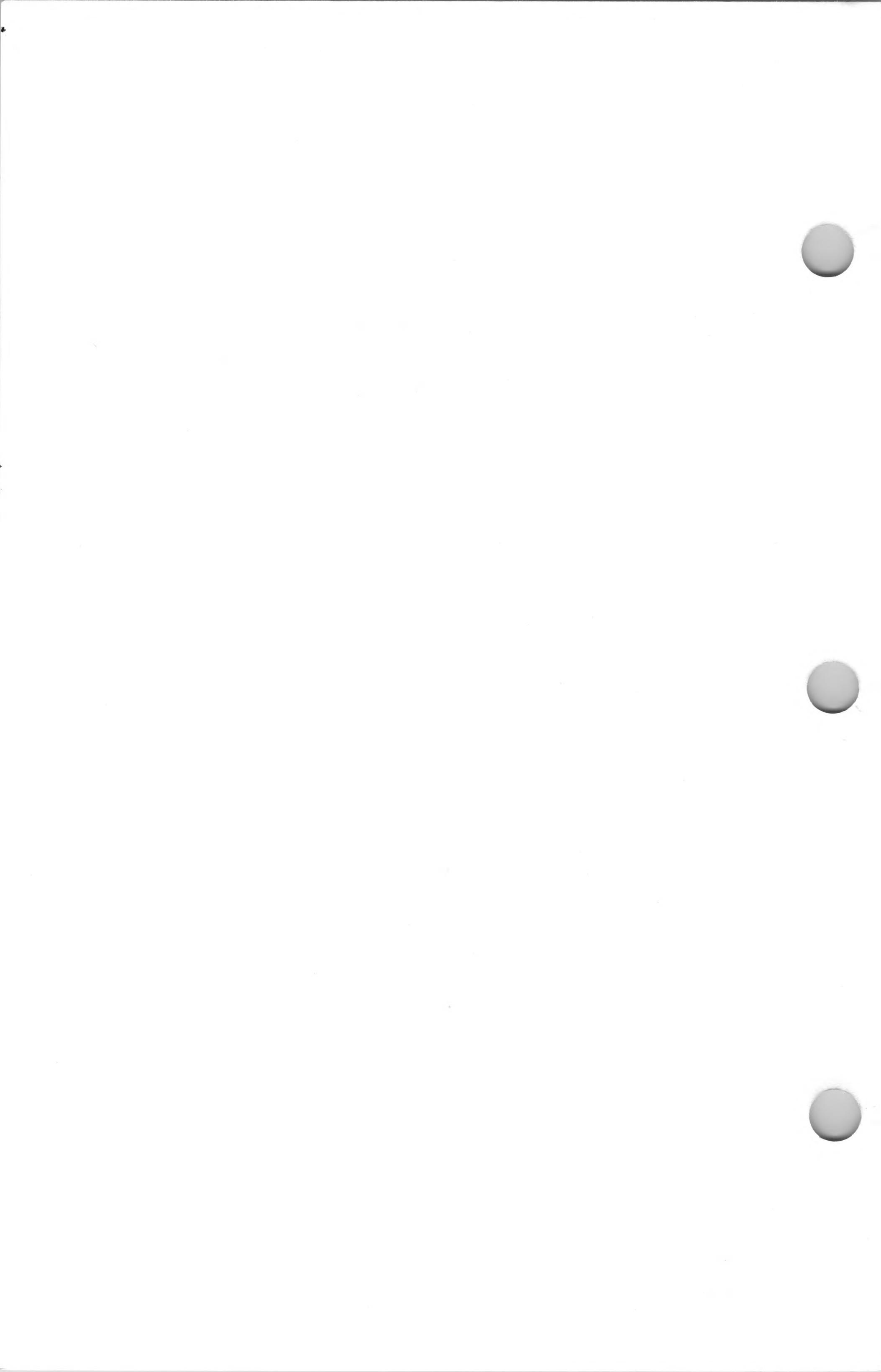
The Honeywell Bull Distribution Operations (DO) is a convenient one-stop center for ordering software; peripheral equipment such as modems, cables, printers, and monitors; and supplies such as disks and disk file cases. The DO carries a wide range of software for the Honeywell Bull PC including technical and business application programs as well as programming tools such as programming language compilers and utilities.

Call the DO directly to order additional equipment, programs, or supplies.

### **Honeywell Bull Distribution Operations**

In Massachusetts: 617-461-5246

Outside Massachusetts: 800-343-6665  
(except Alaska and Hawaii)



## **Section 3**

### **SUPPORT THROUGH THE NATIONAL RESPONSE CENTER**

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The Honeywell Bull National Response Center (NRC) is available for service and assistance 24 hours a day, 7 days a week. If you suspect a malfunction or need help with the installation of your equipment, technical expertise is as close as your telephone.

Call the NRC when you need:

- Installation assistance
- Software operational support
- Assistance with diagnostic procedures
- On-site service (desk top PCs only)
- Expedited exchange service (lap top PCs only)
- Information for service alternatives
- To report problems with equipment that malfunctions on arrival
- To report problems with equipment at other times.

Telephone numbers for the NRC are:

Atlanta local calling area:	982-3066
Within Georgia:	800-282-4350
Outside Georgia:	800-241-1634

Support through the Honeywell Bull National Response Center

The NRC operator needs to know if you have a maintenance contract. Write the maintenance contract number here:

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Before calling the National Response Center for assistance, please record your SYSTEM number on the line below. The SYSTEM number is located on the identification sticker which should have been placed on the right side of your PC. This number is important.

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You'll be asked to provide some supplemental information. The NRC will then forward your service request to the appropriate Honeywell Bull organization, which will, in turn, return your call.

## **Section 4**

# **SECTION SERVICE**

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Your Honeywell Bull PC has a one-year warranty period that begins on the date of shipment from Honeywell Bull. If your system is damaged, or if components are missing or incorrect, call the NRC immediately.

## SERVICE DURING THE WARRANTY PERIOD

Service during the warranty period is available by returning the defective unit to an authorized Honeywell Bull Service Center (Walk-in), or by mailing the defective unit to the Camp Repair Depot in Lawrence, MA (Mail-in). Walk-in Service Centers are listed in Appendix A.

If you return the defective unit to the Camp Repair Depot in Lawrence, be sure to complete the Customer Maintenance Record Form, and use the preaddressed orange shipping label.

A Warranty Service Option can be purchased for desktop PCs only, to receive on-site warranty repairs. In order to purchase the Warranty Service Option, you must also purchase a maintenance contract for one additional year. To receive more information, contact your local CSO District Service Director Office. CSO District Service Director Offices are listed in Appendix B.

## POST-WARRANTY PERIOD

If you purchase a Honeywell Bull maintenance contract, your service coverage continues uninterrupted when you move from the warranty period to the post-warranty period.

If you have not purchased a maintenance contract and your equipment requires servicing after the warranty period has expired, you can continue to use the Walk-in or Mail-in services at the then-current established repair prices, or you can request on-site service at the then-current time and materials charges. You can also contact your local CSO District Service Director to request information on obtaining a maintenance contract.

## SERVICE LOCATIONS

Honeywell Bull service is available at the customer's location for desk top PCs; lap top portable PCs have expedited, next day, exchange service available within the United States. All Honeywell Bull PCs may use Honeywell Bull's authorized Walk-In Service Center or the CAMP Repair Depot in Lawrence. Addresses of authorized Walk-In Service Centers are listed in Appendix A.

## CAUTION

Remove programs and programming data; storage media; non-Honeywell Bull parts/options, attachments or alterations from the faulty unit. Items left with the unit are not the responsibility of Honeywell Bull.

## **SERVICE CALL PROCEDURES – DESK TOP PCs**

### **Walk-In Procedures**

1. Obtain a copy of your purchase invoice if the equipment is under warranty.
2. Identify the defective unit by running the diagnostic program according to procedures in your *PC Owner's Manual*. Remove the defective unit according to the appropriate removal procedure described in this Fact Folder.
3. Write down the symptom(s) or problem(s) that you experienced with the unit (e.g., Parity or IO Error).
4. Pack the defective unit in its original shipping container.
5. Take the description of the problem and the invoice (if applicable) with the unit to a designated Honeywell Bull Service Center.
6. Honeywell Bull will notify you when the equipment has been serviced and tested. Go to the Service Center after this notification to pick up your equipment.

## Mail-In Procedures

1. Obtain a copy of your purchase invoice if the equipment is under warranty.
2. Identify the defective unit by running the diagnostic program according to the procedures in your *PC Owner's Manual*. Then remove the defective unit according to the appropriate removal procedures described in this Fact Folder.
3. Complete the Customer Maintenance Record Form (Form No. HBI 3122). Keep the Shipper Copy for your records.
4. Pack the defective unit in its original shipping container. Enclose the remainder of the Customer Maintenance Record.
5. Enclose the copy of the invoice.
6. Attach the orange shipping label (Form No. HBI 3629) to the shipping container.
7. Ship the unit prepaid to:

HONEYWELL BULL INC.  
DOCK 6 CSO RECEIVING  
CAMP SERVICE  
200 MERRIMACK STREET  
LAWRENCE, MA 01843

8. The unit will be returned to you after service and testing (with shipping prepaid by Honeywell Bull).

## On-Site Service Procedures

1. Obtain a copy of your purchase invoice if the equipment is under warranty.
2. Write down the symptom(s) or problem(s) that you experienced with the unit (e.g., Parity or IO Error).
3. Call the Honeywell Bull NRC to request service. The numbers are:

Atlanta local calling area:	982-3066
Within Georgia:	800-282-4350
Outside Georgia:	800-241-1634

4. The Honeywell Bull Technical Assistance Center (TAC) will return your call. Report the error messages and identify your system configuration.
5. If necessary, a service representative will arrive on site to maintain your equipment.

## SERVICE CALL PROCEDURES – LAP TOP PCs

### Walk-In Procedures

1. Obtain a copy of your purchase invoice if the equipment is under warranty.
2. Identify the defective unit by running the diagnostic program according to procedures in your *PC Owner's Manual*.
3. Write down the symptom(s) or problem(s) that you experienced with the unit (e.g., Parity or I/O Error).
4. Pack the defective unit in its original shipping container.
5. Take the description of the problem and the invoice (if applicable) with the unit to a designated Honeywell Bull Service Center.
6. Honeywell Bull will notify you when the equipment has been serviced and tested. Go to the Service Center after this notification to pick up your equipment.

**Mail-In Procedures**

1. Obtain a copy of your purchase invoice if the equipment is under warranty.
2. Identify the defective unit by performing the self-test diagnostics according to the procedures in your *PC Owner's Manual*.
3. Write down the symptom(s) or problem(s) that you experienced with the unit (e.g., Parity or IO Error).
4. Call the Honeywell Bull NRC to request service. The numbers are:

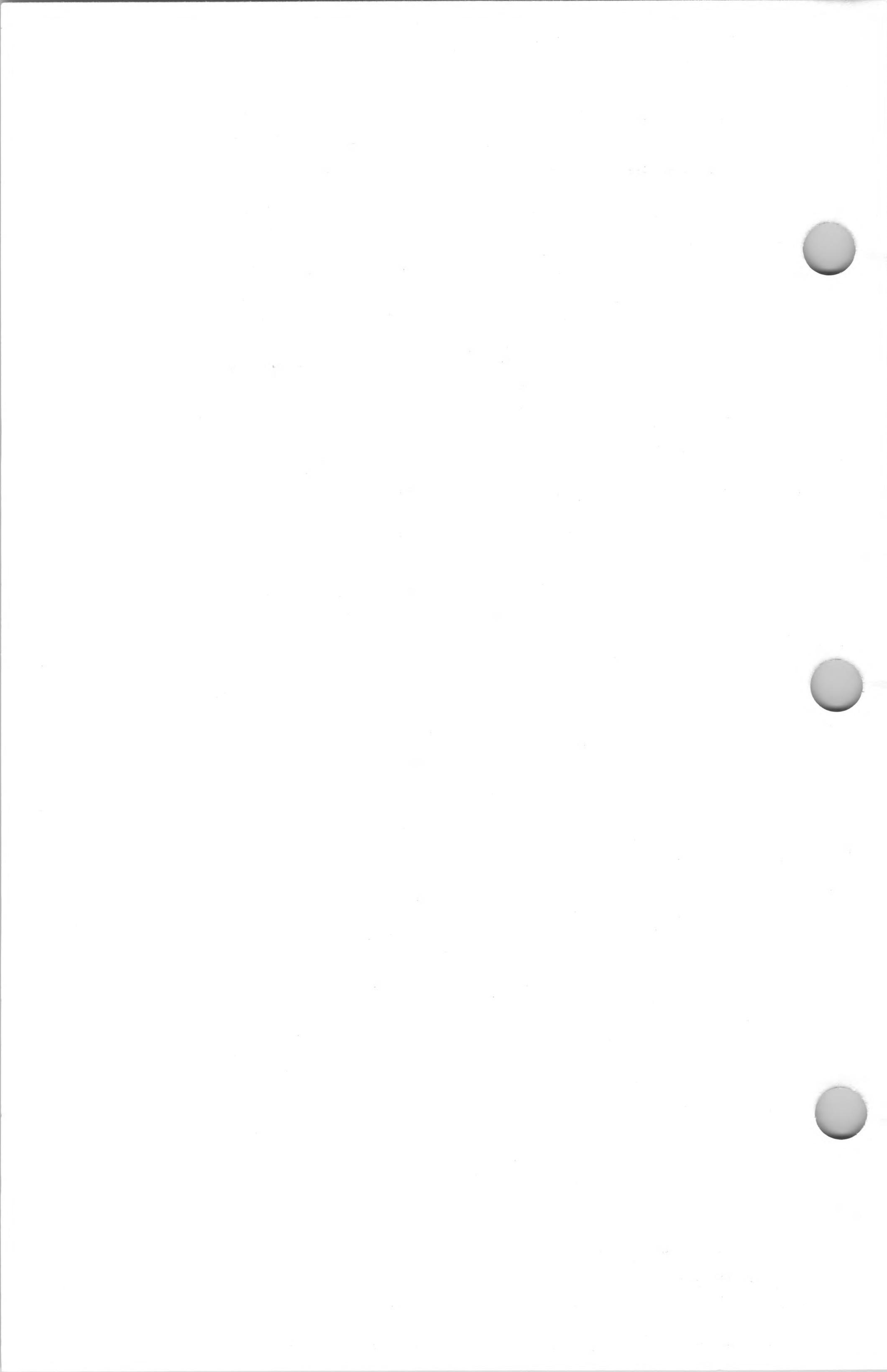
Atlanta local calling area:	982-3066
Within Georgia:	800-282-4350
Outside Georgia:	800-241-1634
5. The Honeywell Bull Technical Assistance Center (TAC) will return your call. Report the error messages and identify your system configuration. The TAC will provide you with shipping instructions as to where to send defective units for repair (ship prepaid).
6. The unit will be returned to you after service and testing (with shipping prepaid by Honeywell Bull).

## Expedited Exchange Service Procedures

1. Obtain a copy of your purchase invoice if the equipment is under warranty.
2. Identify the defective unit by performing the self-test diagnostics according to the procedures in your *PC Owner's Manual*.
3. Write down the symptom(s) or problem(s) that you experienced with the unit (e.g., Parity or IO Error).
4. Call the Honeywell Bull NRC to request service. The numbers are:

Atlanta local calling area:	982-3066
Within Georgia:	800-282-4350
Outside Georgia:	800-241-1634

5. The Honeywell Bull Technical Assistance Center (TAC) will return your call. Report the error messages and identify your system configuration.
6. If necessary, the TAC will arrange for a replacement unit to be shipped to you, and will also provide you with shipping instructions as to where to send defective units for repair (ship prepaid).



## **Section 5**

# **REPLACING COMPONENTS IN A DESK TOP PC**

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The procedures on the following pages will assist you in removing a defective component from your system and, following repair, in replacing it. Components are sometimes called CRUs (Customer Replaceable Units).

**NOTE:** If you have spare components available for your system, use them instead of waiting for repair of the defective unit.

## SYSTEM UNIT REMOVAL

1. Set the On/Off switch to OFF.
2. Disconnect the following cables (if applicable):
  - a. System unit power cord
  - b. Monitor power cord
  - c. Monitor signal cable
  - d. Keyboard cable
  - e. Printer and/or other peripheral cables.
3. Honeywell Bull is not responsible for loss of data on the hard disk. Be sure to copy, if possible, all information to diskette or tape drive before having your unit serviced.
4. **IMPORTANT:** Secure the hard disk to prevent damage to the drive during shipment. Refer to the Honeywell Bull PC Owner's Manual for the correct procedure to secure the hard disk.

## REASSEMBLING THE SYSTEM UNIT

1. Place the unit beside the monitor and keyboard.
2. Make sure the system unit and peripherals are powered OFF.
3. Unlock the hard disk (when applicable).
4. Reconnect the cables.
5. Power ON the system after connecting the cables. Perform the diagnostic procedures to verify proper operation.

## **MONITOR REMOVAL**

1. Power OFF the system unit and the monitor.
2. Disconnect the monitor power cord from its electrical source (not from the monitor).
3. Disconnect the monitor signal cable from the system unit.
4. Return the signal cable and the power cord with the monitor.

## **RECONNECTING THE MONITOR**

1. Make sure the system unit and peripherals (including the monitor) are powered OFF.
2. Set the monitor near the system unit.
3. connect the monitor power cord to the power source.
4. Connect the monitor signal cable to the controller board on the system unit.
5. Power ON the system unit and monitor after connecting the cables. Perform the diagnostic procedures to verify proper operation.

## **KEYBOARD REMOVAL**

1. Power OFF the system unit.
2. Disconnect the keyboard signal cable from the system unit.

## **RECONNECTING THE KEYBOARD**

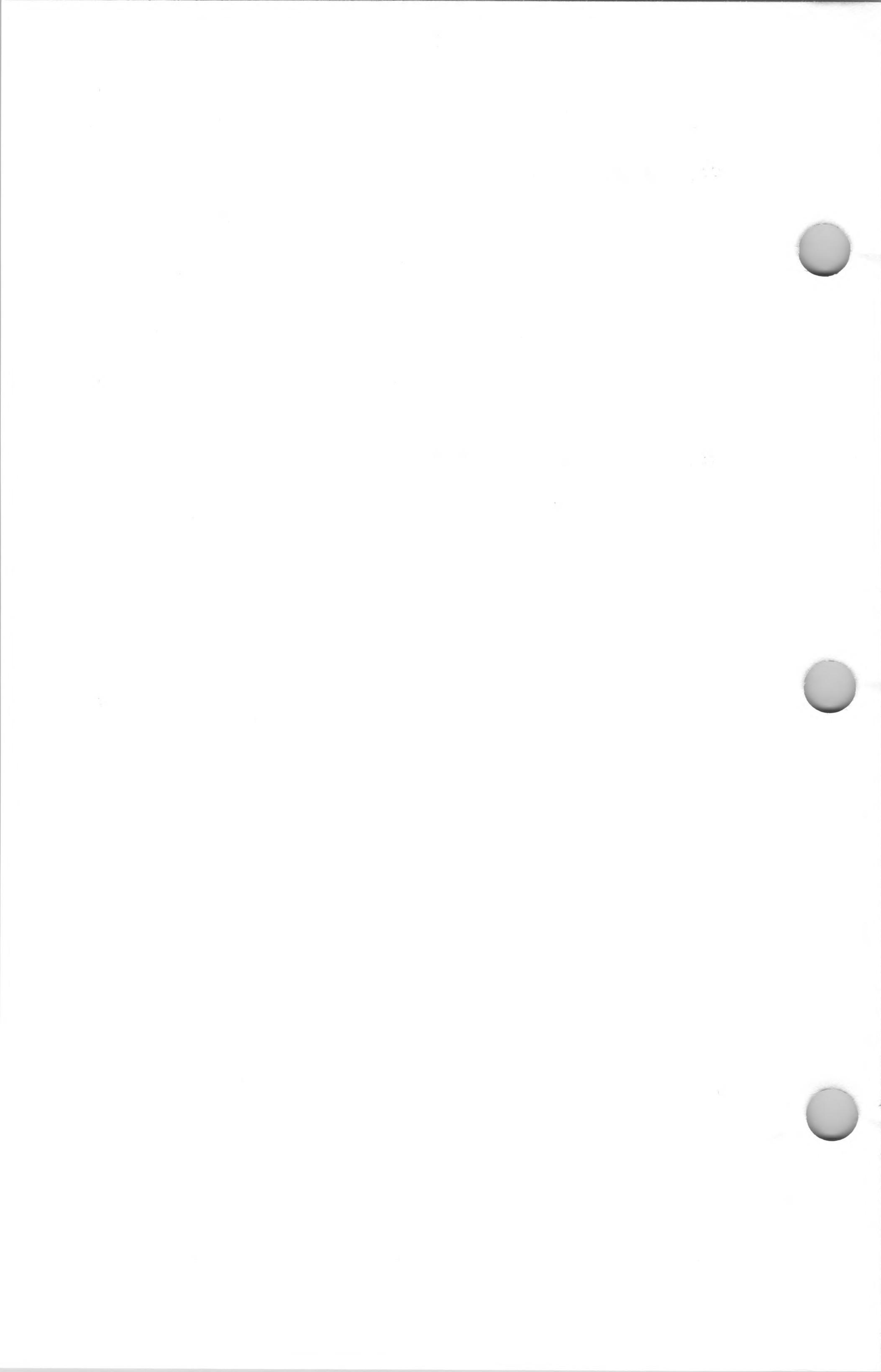
1. Make sure the system unit and peripherals are powered OFF.
2. Set the keyboard near the system unit.
3. Connect the keyboard signal cable to the system unit, and then power ON the system unit. Perform the diagnostic procedures to verify proper operation.

## **PRINTER REMOVAL**

1. Power OFF the system unit and the printer.
2. Disconnect the printer power cord from its electrical source (not from the printer).
3. Disconnect the printer signal cable from the system unit.
4. Return the signal cable and the power cord with the printer.

## **RECONNECTING THE PRINTER**

1. Make sure the system unit and peripherals (including the printer) are powered OFF.
2. Connect the printer power cord to the power source.
3. Connect the printer signal cable to the system unit.
4. Power ON the system unit and printer after connecting the cables. Perform the diagnostic procedures to verify proper operation.



## **Section 6**

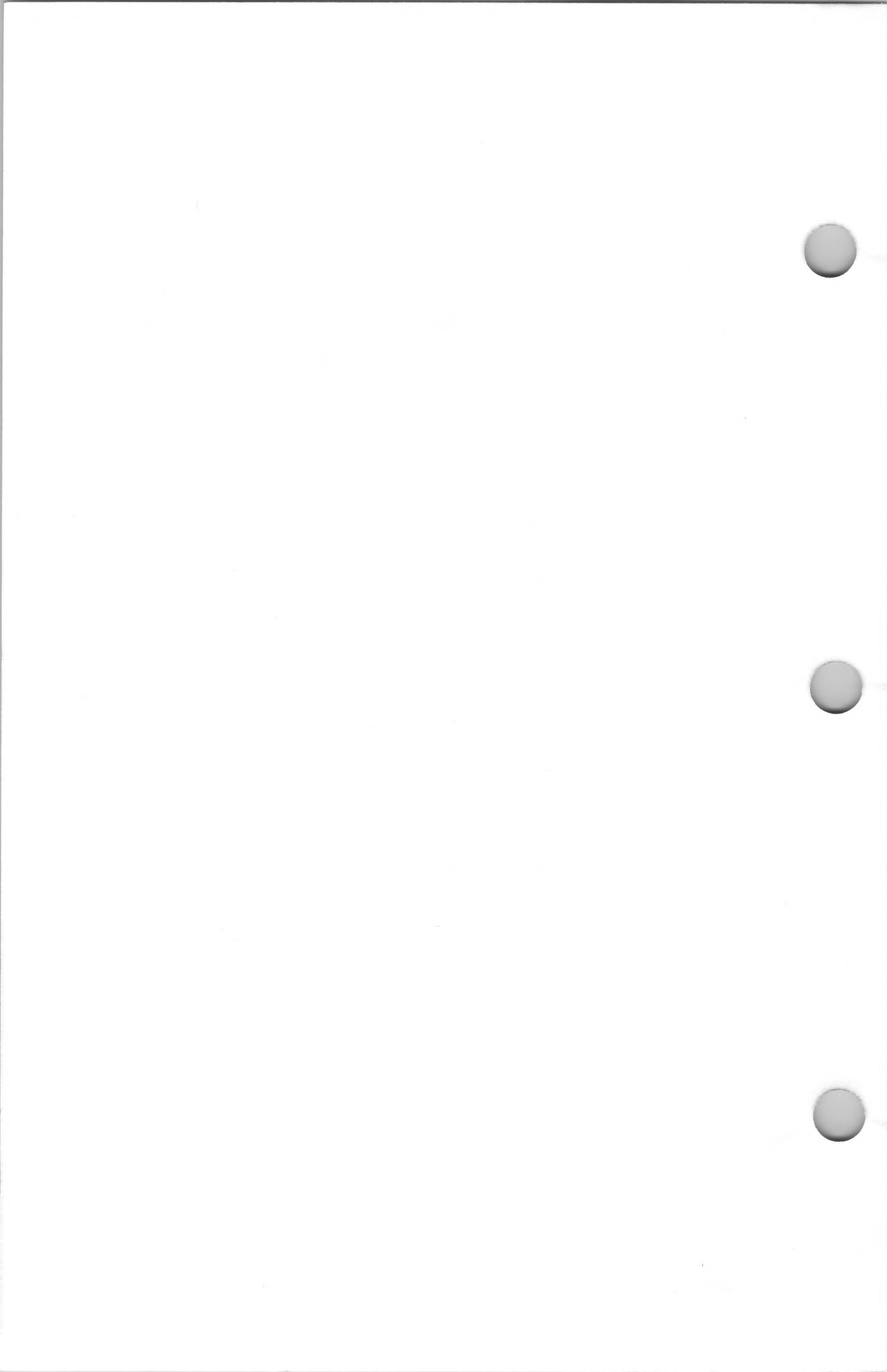
# **IDENTIFYING COMPONENTS IN A LAP TOP PC**

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The following procedures will assist you in preparing lap top units for return to Honeywell Bull for repair, or walk-in to Honeywell Bull Service Centers. To ensure that you receive back the exact configuration component that you mail-in or walk-in to Honeywell Bull, please ensure that the unit configurations are complete (as described below), and that no extra options or components are included.

Units that can be returned for repair are:

1. Complete lap top unit minus the internal modem, battery pack, and ac adapter/charger
2. Internal modem
3. Battery pack
4. AC adapter/charger
5. External 5-1/4 inch diskette with power adapter/cord (return both the drive and power adapter/cord)
6. 24-key numeric keypad
7. Inkjet printer
8. External expansion slot box - for connection of lap top to a Local Area Network (LAN).



## **Appendix A** **HONEYWELL BULL** **CUSTOMER SERVICE CENTERS**

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Area	Telephone	Address
ANAHEIM	714/956-6000 Ext. 6036	405-A North Muller Drive Anaheim, CA 92803
ATLANTA	404/982-2320	2801 Buford Highway Suite 132 Atlanta, GA 30329
BOSTON	617/923-7695	3 Newton Executive Park Newton Lower Falls, MA 02162
CHICAGO	312/671-1800 Ext. 509	4849 North Scott Street Suite 101 Schiller Park, IL 60176
DETROIT	313/548-3550	338 East Twelve Mile Road Madison Heights, MI 48071
HOUSTON	713/690-0616	4501 South Pinemont Suite 108 Houston, TX 77041
MINNEAPOLIS	612/830-3899	7300 Metro Blvd. Edina, MN 55435
PHILADELPHIA	215/839-6648	525 Righter's Ferry Road Bala Cynwyd, PA 19004

Honeywell Bull Customer Service Centers

Area	Telephone	Address
SAN JOSE	408/433-3076	4145 North First Street San Jose, CA 95134-1594
ST. LOUIS	314/872-0320	62A Weldon Parkway Maryland Heights, MO 63043
TAMPA	813/576-1338	9721 Executive Center Drive Suite 122 St. Petersburg, FL 33702

## **Appendix B** **HONEYWELL BULL CSO** **DISTRICT SERVICE** **DIRECTOR OFFICES**

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<b>Region</b>	<b>Telephone</b>	<b>Address</b>
ARIZONA	602/861-4554	2626 West Beryl Ave. Phoenix, AZ 85021
CALIFORNIA	415/974-4320	120 Howard Street Suite 800 San Francisco, CA 94105
	612/830-3802	405 North Muller Street Building 2 Anaheim, CA 92801
GEORGIA	404/982-2225	6 West Druid Hills Drive Atlanta, GA 30329
ILLINOIS	312/672-1292	4849 North Scott Street Schiller Park, IL 60176
MASSACHUSETTS	617/923-7554	2 Newton Executive Park 2223 Washington Street Newton Lower Falls, MA 02162
MICHIGAN	313/424-3646	17515 West Nine Mile Road Southfield, MI 48075
MISSOURI	314/872-0440	655 Craig Road Suite 240 Creve Coeur, MO 63141
MINNESOTA	612/830-3802	7300 Metro Boulevard Suite 425 Edina, MN 55435

Honeywell Bull CSO Regional Offices

Region	Telephone	Address
NEW YORK	914/243-0501	1211 Avenue of the Americas New York, NY 10036
	315/252-1255	7485 Henry Clay Boulevard Liverpool, NY 13088
NORTH CAROLINA	704/364-1328	517 South Sharon Amity Road P.O. Box 220487 Charlotte, NC 28211
OHIO	216/459-6159	925 Keynote Circle Brooklyn Heights, OH 44131
PENNSYLVANIA	215/668-1330	121 Presidential Boulevard Bala Cynwyd, PA 19004
	412/928-4300	Five Foster Plaza 2nd Floor 651 Holiday Drive Pittsburgh, PA 15220
VIRGINIA	703/827-3698	7900 Westpark Drive 6th Floor McLean, VA 22102
TEXAS	214/701-2992	14643 Dallas Parkway Suite 400 Dallas, TX 75240
WASHINGTON	206/453-7568	600 108th Avenue, N.E. Bellevue, WA 98004

**BULL**

Technical Publications Remarks Form

**TITLE**

**FACT FOLDER:  
CUSTOMER SERVICES OPERATION  
SERVICE AND SUPPORT**

**ORDER NO.**

**GZ98-04**

**DATED**

**NOVEMBER 1988**

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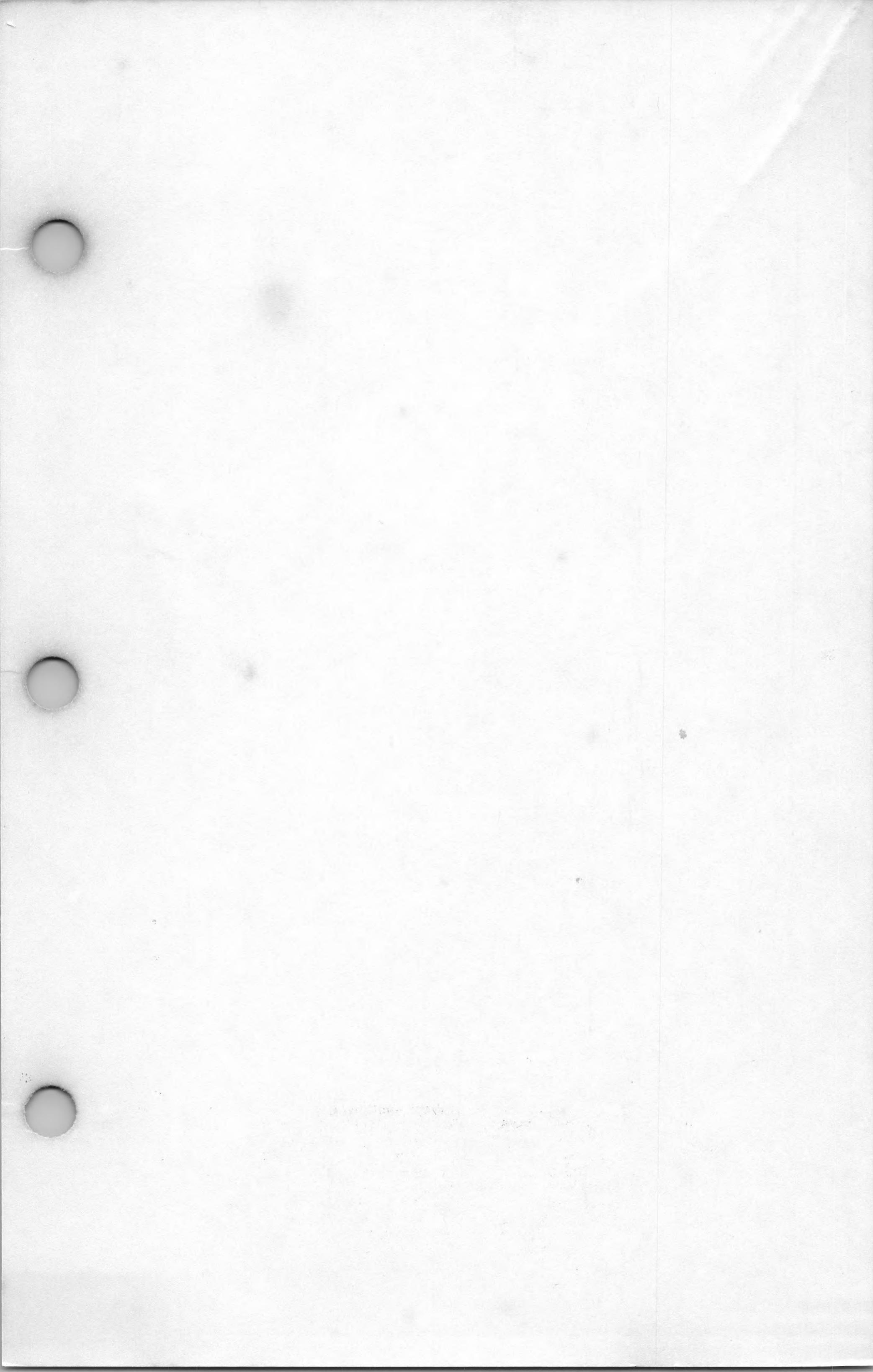
**200 Smith Street**

**P. O. Box 9199**

**Waltham, Massachusetts, 02254-9832**

**-CUT ALONG LINE-**





**Bull HN Information Systems Inc.**

**Corporate Headquarters:** 300 Concord Rd., Billerica, MA 01821

**U.S.A.:** 200 Smith Street, MS 486, Waltham, Massachusetts 02154

**Mexico:** Hamburgo No. 64, Col. Juarez Deleg. Cuauhtemoc, 06600 Mexico, D.F.

**Asia:** 4/F, Shui on Centre, 6-8 Harbour Road, Wanchai, Hong Kong

**U.K.:** Great West Road, Brentford, Middlesex TW8 9DH, England

**Canada:** 155 Gordon Baker Rd., North York, Ontario M2H 3P9

**Australia:** 124 Walker St., North Sydney, N.S.W. 2060

**New Zealand:** 14/16 Liverpool St., Auckland 1

**Italy:** 32 Via Pirelli, 20124 Milan